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ABSTRACT

This article reports on an ethnographic research project that investigated the relationship between home language use and acquisition of academic English as determined by the Comprehensive Test of Basic Skills (CTBS) scores. The subjects were 33 children ages 10 to 14 from bilingual Spanish-English families. Data on home language use was collected through interviews and taping, with variables including the type of reading and writing in Spanish or English and the language preference for family communication. Results indicated a strong correlation between children's ability to read in Spanish and scores on the CTBS reading and language tests, with no correlation between the amount of Spanish spoken at home and success on the CTBS tests. There was also a correlation between father's educational level and their children's CTBS scores. The findings of this study show that Hispanic children whose parents are monolingual Spanish speakers do better on school measures of academic English if the children maintain oral and written literacy in Spanish. (MDM)

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Does Fathertalk or First Language Literacy Predict Academic Success?

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March 1990

This article reports on an ethnographic research project that investigated the relationship between home language use and acquisition of academic English as determined by CTBS scores. The subjects were 33 children ages 10 to 14 from bilingual Spanish-English families.

Data on home language use was collected through interviews and taping. Variables included the type of reading and writing in Spanish or English and the language preference for family communication.

The subjects were tested with the Spanish Brigance Assessment of Basic Skills to determine their level of Spanish reading comprehension. Acquisition of English was judged by CTBS scores in vocabulary and reading comprehension.

Ten of the families each taped 10 dinnertime conversations. Analysis of these tapes showed a strong correlation between percentage of father's participation and the CTBS scores.

Vocabulary (r=.81, p .001) Reading Comprehension (r=.76,p .001)

A strong correlation was also found between the Brigance vocabulary test in Spanish and the CTBS vocabulary test in English (r=.74, p .001).

The quantitative and qualitative differences between fathertalk and mothertalk as heard on the tapes will also be discussed.

This study is the outgrowth of six years of teaching Spanish-English bilingual children who displayed a wide range of success in acquiring academic English. It is possible that the use of the home language played a significant role in this success. The correlations of various soiciolinguistic variables with the students' success in school were investigated to determine the possibility of identifying significant predictor variables.[1]

Literature Review

A number of studies have dealt with the issue of first language maintenance. Table 1 gives a summary of the subjects and variables investigated in these studies. Bhatnagar (1980) and Dolson (1985) found that children did better academically when they came from homes that maintained their first language(L1). Laosa (1982) and Valencia et. al. (1981), on the other hand, concluded that the use of second language (L2) at home was more beneficial than the use of L1 for the children's academic success. These studies addressed the issue of first language maintenance and investigated several possible intervening variables which relate to whether L1 or L2 was spoken at home. The disparity in the conclusions of these studies could be attributed to the differences that exist in the sampling, design, and the independent and dependent variables that were studied.

The conclusion that children from homes where English was spoken did better than those from homes where Spanish was maintained (Laosa 1982, and Valencia et. al. 1981) was possibly the result of confounding variables. The effect of L1 maintenance was likely cancelled by the possible effect of the country of birth or schooling of the parents and length of schooling. Hispanic parents born or educated in the U.S. spoke English at home and had a higher number of years of schooling than those born and educated in Mexico. Parents from Mexico spoke Spanish at home.

Since the number of years of schooling figured prominently in both studies it would seem inappropriate to lump these two groups together. Effects of schooling would be much more readily isolable if the two groups were analyzed separately, parents educated in Mexico in one group and parents educated in the U.S. in another group.

The subject selection and findings of the Laosa and Valencia et al. studies had several points in common. Both sets of subjects were very young kindergarten or preschool-aged children. Because of their young age and lack of school exposure these subjects showed the maximum effects of home influence and cultural background.

Bhatnagar (1980) and Dolson (1985) considered measures of both the students' academic success and social adjustment as the dependent variables of the bilingual school age children who were the subjects in their studies. Their findings revealed that children who retained their L1 in addition to acquiring L2 did better academically and socially than those who did not maintain their L1.

Italian immigrant children in Canada who were attending elementary school in French or English were the subjects of Bhatnagar's study. Among the independent variables investigated were the language use of children in three situations: with parents, with siblings, and with friends. Students who used both Italian and their school language had higher mean scores on the dependent variables which included academic achievement, achievement in the second language, participation in sports, popularity among peers and class participation.

Bhatnagar identified three types of bilingualism: subtractive, additive and retractive. Subtractive bilinguals lose their mother tongue in favor of acquiring the new language and culture. Additive bilinguals retain their cultural identity and first language and add the second language. Retractive bilinguals reject the new language and culture and attempt to speak their first language exclusively. (Bhatnagar, 1980, p.143).

In Dolson's study all the fifth and sixth grade bilingual subjects spoke Spanish at home when they entered kindergarten. The independent variable considered in this study was the home language environment. Dolson found that additive bilinguals performed significantly better on CTBS measures and had higher academic grade points than subtractive bilinguals. Among the research reviewed thus far, Dolson's subjects were the

most homogeneous because they had all begun school as monolingual Spanish speakers and had attended the same U.S. school for the same period of time.

The most obvious difference between the Laosa and Valencia et al. studies vs. the Dolson and Bhatnagar studies is the age of the subjects. Laosa and Valencia et al. studied kindergarten or preschool-aged children. The differing results suggest that the advantages of being bilingual do not show up until later in elementary school. Another reasonable explanation for the apparent contradictions of these two sets of studies is that it may take five years for a child from a minority language group to become adept at playing the "school game" or understanding the subtleties of the second language's academic culture.

The groups under study in both the Laosa and Valencia et al. studies were heterogeneous in the sense that about half of the parents in the Laosa study were born in Mexico, half in the U.S. (Laosa,1982,p.812). In the Valencia et al. study about 60% of the parents were educated in Mexico, 40% in the U.S. (Valencia, 1981, p.526).

In analyzing family factors that relate to children's intellectual achievement, it seems important to control for the more obvious gross variables, rather than to compare families where the parents have six years of education with those who have college degrees as was done in the Valencia et al. and Laosa studies. Thus, through a process of fine tuning, researchers could progressively delimit the groups to those that are most homogeneous and then examine some of the more subtle variables such as home language use.

In the present study, subjects were chosen to resolve some of the inconsistencies of previous studies by selecting a more homogeneous group. Ninety-five percent of the parents in this study were born and educated in Mexico. In all cases, Spanish was the language that parents spoke with each other, and ninety-five per cent of the time it was also the language that they spoke to their children.

The subjects were students in the fourth through seventh grades who had lived in the U.S. and attended U.S. schools for five years or more. This particular group of students would have had enough exposure to English and U.S. culture to produce valid

results on tests that were standardized on English-speaking U.S. students. (Cummins, 1984. p. 135)

There have been other related studies that found that ability to read in the first language had a positive effect on learning to read in the second language (Lambert, 1972: Saville-Troike, 1984: Weinstein, 1984).

Purpose of study

The purpose of this study is to determine the relationship of L1 maintenance and/or development to success in acquisition of English as an L2 , and related success in school subjects. This study will attempt to show that development of the first language is positively related to acquisition of the second language, and further that literacy in the first language is positively related to literacy in the second language.

Research Questions

1. Does ability to read and write in Spanish have a significant relationship to school measures of English language development?
2. Does amount of Spanish spoken at home have a significant relationship to school measures of English language development?
3. Does age of arrival in U.S. have a significant relationship to school measures of English language development?
4. Does education of the parents have a significant relationship to school measures of English language development?

Community Setting

The setting for this study is a rural community of about 5,000 in the northwestern United States. Its economic base is agricultural. This particular area has been settled and farmed since the early 1800's. During the 1920's recent Japanese immigrants were the farm labor force. Hispanics have worked as farm laborers in this area since the late 1960's.

The basic social and economic division in the community is between those who own the farms and those who tend and harvest the crops. Currently this social and economic division is also an ethnic division. The farm owners are Anglo and English speaking, and the farmworkers are Hispanic and Spanish speaking. This stratification results in two groups; a dominant linguistic majority and a subordinate linguisitic minority. This study is about acquisition of English by the subordinate linguistic minority.

Group Selection and Description

There were 19 bilingual Hispanic families in this study. The criteria for initial selection were the languages spoken at home and the occupation of the father. In order to get as homogeneous a group as possible there were other restrictions. The group was limited to those who had lived in the U.S. five years or more and had attended the same elementary school. Only those families who had children in the 5th, 6th, or 7th grades during the 1986-87 school year were included.

This study focused on students in the fifth, sixth and seventh grades in order to evaluate their success in acquiring school- related English. School children of this age need at least 5 years to become proficient in a second language.(Cummins, 1984. p.135). All of these children spoke little or no English when they started school. Spanish is the primary home language and all of these children spoke both languages to one degree or another.

After selecting this group, there were 19 families and 25 children. In 6 of these 19 families there were children who had been in the fourth grade during the 1986-87 school year. These fourth grade children were included, bringing the subject total to thrity-one, because of the possibility of comparison with their older siblings on issues of language use and success in school. (See Table 2 for a description of the group.)

Family Language Patterns

The reasons this group maintains Spanish as its primary language are numerous and complex. Even though the children in this study were bilingual, the parents were primarily monolingual Spanish speakers. There are a number of families in the study who came to the U.S. to work until they make enough money to return to Mexico and buy land. There are many families who report that they have never really felt at home in the U.S. and look forward to the time when they can return to Mexico permanently.

Because many families return to Mexico when the father is in his early fifties, they want their children to speak, read, and write Spanish so they will fit in when they are back in Mexico. In order to insure that their children were literate in Spanish, one family returned to Mexico at the end of harvest and enrolled their children for the remainder of the school year (eight months). More than half of the parents in the study feel that schools in Mexico are better than U.S. schools. They commented that their children learn more in a shorter period of time, and the discipline is better.

Most parents in the study value bilingualism. Those who plan to return to Mexico know that their children will need Spanish, but they are also aware that English is useful for getting some jobs in Mexico. Those families who plan to stay in the U.S. realize that their children will be able to get better jobs if they are bilingual.

Besides trips to Mexico (usually two months in length), some of these children maintain and improve their Spanish by corresponding with friends and relatives in Mexico. Other sources of Spanish vocabulary are relatives who arrive from Mexico to participate in harvests or visit for awhile.[2]

Migration Patterns

The original family selection criteria were the federal guidelines identifying Title I migrant students.[3] However on the basis of ethnographic data it was found that there were families not designated migrant who fit in the target group. On that basis, they were included in the study.

Among these 19 families there were 10 who had the official migrant designation. There was a wide variety of migrant vs. non-migrant behavior among all 19 families. Some left the area one or two months every year to harvest crops in another location, but returned to the same cabin or house. Other families were gone one or two months every year, or more commonly every other year, to visit relatives and friends in Mexico. Those who went to Mexico to visit were not officially designated as migrant. However the children missed as much or more school as those who moved for harvests. Out of the 19 families 10 had not gone back to Mexico since their arrival in the U.S., and 9 went back with varying degrees of frequency.

Parents Occupation

All of the fathers in this study work in the orchards. Their work activities during the year include pruning, thinning, propping the branches and harvesting. Their tasks also include fertilizing, planting trees, lighting smudge pots, and setting and changing irrigation pipes. Some of the fathers who have been in the U.S. longer have a greater command of English and serve as foremen.

The mothers hold a wider variety of jobs. Seven of them work with their husbands on a daily basis. Six of these mothers work only during packing season, which lasts from August through January. One of the mothers earns money babysitting other children. One mother is not working outside the home. These were all families with both natural parents.

Eighteen of the nineteen mothers in this study work at least six months out of the year. This sample is typical of migrant families in the northwest. The Ockerman (1985) study of 1,746 northwest migrant families found that 82% of the migrant mothers in their study worked. This is in distinct contrast to the 1980 census figures which showed that in the general U.S. Hispanic population only 49% of the mothers worked.

School Setting

The elementary school attended by these children was a rural school built in 1920. There were only 6 classrooms and the school population averaged 150 students. Half of

this school population had Hispanic surnames. However not all children with Hispanic surnames were included in this study. Only those children whose fathers did farmwork and who spoke both English and Spanish at home were included.

Despite the number of bilingual children there was no bilingual program in this school or this district. For four years out of the six that I taught there, we did have a cultural enrichment program to teach reading and writing in Spanish. This program ran for four months each year for 2 half-hour sessions per week. There were some books in Spanish in the school library and parents were encouraged to read to their children in Spanish.

Design of Study

The design of this study combined observational survey with correlational analysis. This design was chosen in an attempt to determine how home language use relates to success or failure in the acquisition of school-related English. Nineteen families with very similar characteristics were selected and home language use variables were compared with success on school measures of language development. Ethnographic and quantitative approaches were combined in this study (Jacob, 1982, p.132ff).

The questionnaire was divided into four sections. The first section gathered general information such as ages of parents and children and when they first arrived from Mexico. The second section gathered information about spoken language, who spoke which language to whom, and how well they understood each other. The third section dealt with the uses of reading and writing in the two languages. The final section asked about the parents' attitudes toward U.S. and Mexican cultures and their attitudes toward the two languages. The questionnaire data was subjected to factor analysis, Pearson Product Moment Correlation and multiple stepwise regression.

Nine families each taped 10 half-hour segments of family dinner-time conversation. This particular activity was chosen as the one time of day family members would be most

likely to be conversing together. These tapes were used to verify the percentages of spoken English or Spanish and analyze the participant structure of the conversation.

These nine families were selected as a representative sample of the entire group. A t-test analysis was done to verify this. Two t-tests were run, one compared individual variables and the other compared family variables. (See Table 3)

The tapes of dinnertime conversation were quantified as to percentage of Spanish, and percentages of participation of both father and mother. These percentages were then compared to the English language measures (CTBS scores) using the Pearson PM Correlation.

Control Variables

The control variables in this study were bilingualism and occupation of the father. The students were in the fourth, through seventh grades. All had lived in the U.S. for at least five years. All students were bilingual in Spanish and English, and their parents were monolingual Spanish speakers. All of the fathers were farmworkers. Thirty-one subjects from the same elementary school met all the criteria.

Dependent Variables

Subject scores on school measures of language development are considered dependent variables since they should be influenced in some way by the subjects' bilingual home environment. The variables considered dependent in this study were the students' scores on three subtests of the Comprehensive Test of Basic Skills: Vocabulary, Reading Comprehension and Language Expression. The range of percentile scores for this group was Vocabulary 1-98%, Reading Comprehension 4-96%, and Language Expresssion 3-99%. These tests were all administered in the classroom during April 1987.

Independent Variables

The independent variables in this study were child's age on arrival in the U.S., length of family residence in U.S. and amount of parental education. Other independent variables were the amount of Spanish spoken in the home, the amount of English or Spanish read in the home, and amounts of TV watched in the two languages. These were measured through the use of an interview questionnaire, observation, and tapes of dinnertime conversation.

Students' Spanish reading ability was measured with the Spanish Edition of the Brigance Assessment of Basic Skills. Only the Reading Comprehension and Vocabulary sections of this test were used.

Data Collection

The data collection for this study took place between June 15, and August 15, 1987. All families were visited at least once for the interviews and Brigance testing. For many it was necessary to go back later to complete parts of the interview with family members who were not present the first time, or to verify answers with other family members. I went to meals at three of the houses, thus gaining first hand information about the setting and context of the dinner-time conversations.

Visits ranged from 30 minutes to an hour and a half. Because of my familiarity with these families I was there as a friend. They felt comfortable telling me what they thought and were interested in helping me with my project. I had done a previous (similar but lengthier) interview with about half of these families, so they were accustomed to my asking questions. With the exception of one family, I had known all of these families for five or six years previous to the time of the study.

The answers to the question about who spoke what language to whom were decided by consensus, usually between the mother and child in question. However, opinions were often chimed in by other siblings. The validity of these responses were verified by tapes of dinnertime conversations.

Results

There were two sets of results. One from the questionnaire data and the other from analyzing the taped converstions.

A five point scale was used on the questionnaire to indicate percentage of spoken English or Spanish. "Zero" represented 100% English, "one" indicated 75% English and 25% Spanish, "two" was half and half, "three" indicated 75% Spanish and 25% English, while "four" indicated 100% Spanish. Therefore, more Spanish spoken in the home would give a positive correlation.

A factor analysis was done using all the independent variables that showed sufficient variance. The first five factors accounted for 76.7% of the total variance (See Table 4). The first factor had an Eigenvalue of 3.59 and accounted for 27.6% of the total variance and includes the child's enjoyment of reading Spanish and English as well as writing letters in Spanish. I see this factor as indicating literacy.

The second factor, Spanish in the home environment, had an Eigenvalue of -2.13 and accounted for 16.4% of the total variance. This factor included the parents' enjoyment of reading in Spanish as well as Spanish being spoken by peripheral family members, such as aunts and uncles and friends of the parents. It also reflected what the child spoke to his/her siblings.

The third factor had an Eigenvalue of 1.74 and accounted for 13.4% of the total variance and indicated the amount of communication and understanding in Spanish between the parents and the child. The fourth (E = 1.37) and fifth (E = 1.14) factors accounted for 10.5% and 8.8% of the variance respectively. Factor four may be related to length of residence in the U.S. and factor five may relate to spoken English, but these two are not clear.

A multiple stepwise regression was also done on those factors showing sufficient variance. They were grouped according to spoken input variables, spoken output variables

and literacy variables. They were compared as to their effect on the dependent variables (See Table 5).

Pearson Correlation Coefficients were derived for all the questionnaire variables. The outstandingly high correlations were between the Brigance tests of Spanish abilities and the CTBS tests of English language abilities. (See Table 6).

Because of time constraints the 45 hours of taped dinnertime conversation were quantified in a general way. Percentage of time for a particular speaker or a particular language were the factors considered. Percentage of Spanish spoken and percentage of the total conversation that was contributed by the mother or father were the three possibilities.

These percentages were compared to the CTBS scores using the Pearson PM Correlation. (See Table 7) The significant correlations were between fathers' amount of participation and the CTBS subtests in Vocabulary and Reading Comprehension. There was also a meaningful correlation between fathers' participation and the child's score on the Brigance Spanish Vocabulary Test.

Discussion

Does ability to read and write in Spanish have a significant relationship to school measures of English language development?

The most clear-cut finding in this study was the strong correlation between ability to read in Spanish and scores on the three CTBS reading and language tests (See Table 6). This correlation was further supported by findings on the variable "Enjoys Reading in Spanish." This was the parent's, usually mother's, assessment of how much the child enjoyed reading in Spanish. It is particularly interesting to note that enjoyment of reading in Spanish correlated more closely with the CTBS measures than did enjoyment of reading in English.

The multiple stepwise regression analysis even further supported this finding. Enjoyment of Reading Spanish was the most significant variable on all three CTBS tests. When all variables were put in together it was the only one that was significant (See Table

5). This finding is in agreement with other studies of positive transfer (Lambert,1972, 209; Saville-Troike,1984,p.203; Weinstein, 1984, p.472).

Does amount of Spanish spoken at home have a significant relationship to school measures of English language development?

The analysis of the taped conversations showed that the amount of Spanish spoken in the home had no relationship to success on the CTBS tests. However the amount that the father spoke showed a significant relationship to school measures of English language development. Further, the amount the mother spoke had no relationship. Both the mothers and fathers spoke only in Spanish.

There were quantitative and qualitative differences between the mothers' conversation and the fathers' conversation. All of the mothers participated a similar percentage of time whereas the participation of the fathers varied from dominating the conversation (over 50% of the time), to only a few words in five hours of taped conversation.

Mothers tended to talk about topics directly related to the meal, for example "No quieres mas tortillas," or "Coma las verduras." On the other hand fathers tended to talk about topics outside the home, such as work, or the county fair or relatives who were coming from Mexico.

Another difference between mothers' and fathers' conversation was that mothers were frequently interrupted whereas fathers were not. Mothers were interrupted by children crying, children asking for their attention and the demands of cooking and serving the food. The fathers were not interrupted. Children could be screaming and dishes falling and the father did not discontinue his discourse. As a result the children were hearing long complex sentences with many embedded clauses from their fathers. From their mothers they were hearing only short simple sentences that referred to the meal in progress.

Does age of arrival in U.S. relate to school measures of English language development?

There was a significant correlation between age of arrival, and the CTBS Language Expression subtest (r = .4543, P=.005). The older these children were when they arrived in the U.S., the better they did on this subtest. An explanation for this performance level is that they had mastered more complex forms in their first language before acquiring the second.

This finding also relates to some ideas of Ogbu(1978). Ogbu makes a distinction between linguisitic minority groups born in the U.S. and those who immigrated. He refers to those born in the U.S. as caste minorities, whereas those who arrived here later are designated immigrant minorities. According to Ogbu the children who are born in the U.S. or arrive at a very young age internalize their low social position and economic status in the U.S. and therefore do not have a positive self concept or high expectations for their future. Often they do not succeed in school. However, those children who arrive in the U.S. at the age of 7 or 8 or later do better in school because they usually have a more positive image of themselves and their ability to do well in school (Ogbu 1978,p.235).

Does education of the parents show a relationship with school measures of English language development?

There was a significant correlation between the CTBS Vocabulary Test and the number of years of the father's education (See Table 6). There appears to be a relationship between the education of the father and the percentage of father's participation in family conversation. If the father had had five years of schooling he would possibly be contributing more abstract ideas or a larger vocabulary when he conversed with his family than would a father who had had only one year of schooling .

Interestingly, the mothers' years of schooling showed no correlation with any of the CTBS subtests. Jacob (1982) in her study of kindergarteners in Puerto Rico also found

a similar correlation between the education of the father and the child's scores on the Stanford Binet test (1982,p.131)

Because of their more qualitative nature, the responses from the "attitudes toward culture" questions were not included in the quantitative analysis. However, they are worthy of discussion.

The responses from the "attitudes toward culture" were grouped according to their positive or negative or non-committal attributes. The scores for the students in these families were averaged to see if there was a relationship between "attitudes toward culture" and success on the CTBS tests. These groups were then ranked in the order of success on the CTBS test (See Table 8).

This finding bears a strong similarity to the results of Bhatnagar's in his study of linguistic behavior and adjustment (1980). He quotes Taylor et al (1978) saying that second language learning and use must be viewed in the context of intergroup relations (Bhatnagar, 1980, p.142).

The first two groups in Table 8 seem to be examples of additive bilinguals, with positive attitudes toward both cultures and both languages. In the third group the answers ranged from "I don't know" to "O.K." for both cultures. Interestingly enough, two families in this group have one child who scores high on the language measures and one child who scores low.

The last two groups in Table 8 are possibly examples of retractive and subtractive bilingualism. The families in the second-to-last group definitely prefer Mexico. They have all recently been there or are planning to return there soon. The mother in one family said, "Mexico es mas alegre que aqui'." (Mexico is happier than here.)

The families in the final group have negative attitudes toward Mexico or the Mexican culture. When asked what she thought of Mexican culture, one mother responded, "Es muy dura. Solo trabajar para ganar dinero." (It's very hard, just working to make money.)

More detailed data on attitudes toward the two countries and the two cultures would provide a fertile area for exploration.

Conclusion

The findings of this study show that Hispanic children whose parents are monolingual Spanish speakers do better on school measures of academic English if they maintain their L1. Developing and maintaining literacy in the L1 showed a particularly strong relationship to success in academic English. Another finding of interest was the relationship between the child's success in academic English and the father's years of schooling. This finding apears to be related to the positive correlation between two CTBS tests and the father's participation in family conversation. One other interesting finding concerned age of arrival in the U.S. The older the child was at the time of arrival in the U.S. the higher the score on the CTBS Language Expression measure.

Directions for Future Research

It would be informative to do an expanded version of this study using 60 to 70 additional subjects. In this expanded version one could get more specific information on the parents' attitudes toward the two cultures. More oblique or concrete questions might elicit more useful information on these topics. Some possible questions might be:

"How is the U.S. alike or different from what you envisioned before you came?"

"How are schools in Mexico different from schools in the U.S.?"

It would also be useful to do a more thorough analysis of the uses of literacy in the home, possibly using rating scales similar to that used by Trueba (1984) and including an evaluation of the parents' reading abilities in Spanish. Possibly there is a correlation between the parents' level of literacy in Spanish and the students' success in academic English.

An interesting follow-up to the Laosa and Valencia et al. studies would be a comparison of different Hispanic groups living in the same area. The academic success of Hispanic-American students whose parents were educated in the U.S. could be compared

to that of Hispanic-American students whose parents were educated in Mexico, controlling for the number of years of parental schooling.

Recommendations

Considering the high correlation between ability to read in Spanish and success in academic English, the most obvious recommendation is to encourage these students to read in Spanish, and to encourage the parents to read to their children in Spanish. A school bilingual program of any kind, transitional or maintenance, would most likely be helpful. If this is not possible, the parents should be encouraged to teach their children to read in Spanish. Studies in acquisition of literacy (Laosa,1982 among others) have shown how essential it is for parents to read to their children. Since these parents are literate in Spanish but not in English, the school should provide many interesting easy level children's books in Spanish that the parents could read to their children.

This community appears to be an appropriate situation for participatory or citizen-based research.[4] There is already in place a parent advisory group that is a counterpart of the Title I Migrant program.[5] This group is open to all parents of migrant children in the school district. It meets every other month with the intent of gaining better education for migrant children.

These parent group meetings would be a place to discuss issues of language use in bilingual homes. Some appropriate issues might be: What ways of using language are best for increasing a child's vocabulary?, What do I do when my child doesn't understand me?, or, How important is it to me that my child learn Spanish? Out of these discussions a plan of action might develop for a participatory research project to find the the answers to these questions.

Some of the issues of language use in the home were beginning to be discussed when we talked about taping family conversation. One of these issues was what time of

day the family would most likely be conversing together. There was also reflection on what family members actually said to each other.

Other projects this parent group might undertake are oral history and literacy projects. It would be interesting to write down the stories of all the families who traveled to this particular area. They could also write a history of Hispanics in this area. A literacy project might entail the parents writing down a story and the children illustrating it. One goal of a literacy project would be to have books that parents could read to their children that related closely to their own experience. It would also help solve the problem of a general lack of books in Spanish.

Contrary to the dismal picture of Hispanics in U.S. schools that was painted by Laosa, and Valencia et al., it seems there are a number of avenues for change in this situation. The first and most obvious is to develop literacy in the first language first. This could be facilitated by parents and teachers reading books to the child in his/her first language. Another is development of the home language during pre-school years and continuing development throughout childhood. A third avenue, related to the above two is respect for the child's home culture and language. This respect from school personnel increases the child's self-respect which is necessary for success in anything.

The central question of this study has been: Does first language maintenance relate to the acquisition of academic English? The research summarized here suggests that the answer is a qualified "Yes." There is a positive relationship when first language maintenance includes literacy and positive attitudes toward the majority and minority cultures.

Endnotes

1.This paper was presented at the TESOL Annual Convention, March 8, 1990 in San Francisco, California.

2. An aunt of Family 14 had recently arrived from Mexico and was helping out with the children and housework while the parents were working. She was a monolingual Spanish speaker.

3. A family acquires Title-I migrant status by moving to find seasonal agricultural work. They keep this status for six years following their last move.

4. This concept is explained on pp. 36 & 37 of an article by John Gaventa and B.D. Horton, entitled: A Citizen's Research project in Appalachia. I first heard about it in a lecture at Portland State University by Peter Park of Amherst University during July 1987.

5. Title I programs are federally funded programs in public schools. They include remedial reading and the migrant program that I worked in. A parent advisory group represents the parents of the students in these programs and is mandated by law.

Table 1 — n.r. = not reported

Study	Valencia	Laosa	Dolson	Bhatnagar	Cook
# of subjects	190 Mex-Amer.	43 Hisp. 40 non-Hisp.	108 Hisp.	171 Eng/Ital 102 Fr/Ital	31 Mexican-Amer.
Age of subjects	33-69 months	5 yrs.	5th,6th grades	elem. school	10-14 yrs.
Langs. involved	Eng/ Span	Eng/ Span	Eng/ Span	Eng/Ital Fr/Ital	Eng/ Span
Socio-economic	low-income daycare	"typical"of ethnic group	working class	"control-led SES"	farm laborers
Mexican parental nativity	n.r.	54% fathers 49% mothers	n.r.	n.r.	100% fathers 95% mothers
Yrs. educ. of parents	Fath 0-18 Moth 0-17	Fath 1-18 Moth 1-14	n.r.	n.r.	Fath 0-6 Moth 1-11
Par. educ. in Mexico	67% Fath. 53% Moth	n.r. probably. like nativity.	n.r.	n.r.	100% fathers 95% mothers
Parental literacy	n.r.	n.r.	n.r.	n.r.	34 in Span. 4 in Eng. 4 non-lit.
Parental residence in U.S.	n.r.	n.r.	at least 6 years	n.r.	5-20 yrs.
Child age at arrival	n.r.	n.r.	before 5 yrs.	n.r.	0-8 yrs.
Parent-Child Lang.	74% Spanish	50% Spanish	80% Spanish	50% Ital.	95% Sp. to child 85% Sp.to parent
Test used	McCarthy Scales	none	CTBS: Eng, Math, Span	teacher judgement	CTBS-Eng Brigance-Span

Table 2 Description of Group

Number of families	19
Number of student subjects	31
Number of girls	17
Number of boys	14

Range of CTBS score	Percentile
Vocabulary	1 - 98
Reading	4 - 96
Language Expression	3 - 99

Descriptive Statistics	Range	Mean	Mode
Ages of children	10 to 12	12	
Grades	4 to 7	5.5	6
Years in the U.S.	5 to 22	11	13
Age of Mother	31 to 48	37	
Age of Father	32 to 55	42	
Yrs. of Educ. Mother	1 to 11	4	12 with 3 yrs. or less
Yrs. of Educ. Father	0 to 6	2.4	1

All fathers work in orchards
All children are bilingual to some degree

Comparative Statistics	this study 1987	Ockerman 1985	Hispanics U.S. Census 1980
Mean # of children in family	4.2	3.9	2.3
Percentage of Mothers that work	95%	82%	49%

Table 3 Results of the t test

Group 1 = untaped 17 target students in 10 families

Group 2 = taped 14 target students in 9 families

Individual variables					Family variables				
	Group	Mean	Stan Dev.	T Value		Group	Mean	Stan Dev.	T Value
Age	1	12.2	1.03	0.67	Resi	1	11.7	3.62	0.39
	2	12.0	0.88		dence	2	10.9	5.32	
Sex	1	0.41	0.51	-.48	Mex	1	0.60	0.84	-.77
	2	0.50	0.52		Vis	2	0.89	0.78	
Grade	1	5.71	0.98	0.94	Moth	1	38.7	4.74	1.80
	2	5.36	1.08		Age	2	35.3	3.16	
CTBS	1	35.2	23.7	0.22	Fath	1	43.9	5.47	2.61
Vocab	2	33.4	22.8		Age	2	38.0	4.24	
CTBS	1	41.5	23.3	-.01	Moth	1	4.20	3.26	0.23
Read. Comp.	2	41.6	23.2		Schl	2	3.89	2.47	
CTBS	1	44.7	22.8	-.09	Fath	1	2.90	1.73	1.07
Lang. Expr.	2	45.5	27.8		Schl	2	2.11	1.45	
Brig.	1	3.82	1.98	0.06	Moth	1	0.30	0.48	-.15
Span. Vocab.	2	3.78	1.42		Engl	2	0.33	0.50	
Brig.	1	3.18	1.94	-.75	Fath	1	0.50	0.53	0.23
Span. R. Comp.	2	3.71	2.02		Engl	2	0.44	0.53	

Table 4 FACTOR ANALYSIS

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Child enjoys reading Spanish	.87516				
Child writes letters in Span.	.84431				
Child enjoys reading English	.79340				
Parents enjoy reading in Spanish		.88467			
Parents' friends speak Sp. to child		.86452			
Child speaks Spanish to his siblings		.54223			
Child speaks Spanish to mother			.93715		
Child speaks Spanish to father			.88922		
Child understands parents' Spanish			.40804	-.42247	
Family watches TV in Spanish				-.87485	
Child speaks Sp. to parents' friends	.39834			.73135	
Godparents speak Spanish to child					-.77765
Aunts and uncles speak Sp. to child	.39943				.75437

Table 5

MULTIPLE STEPWISE REGRESSION

English Vocabulary CTBS	**R**	**R2**	**beta**	**SE B**	**F**	**sigF**	**T**	**sigT**
Literacy Variables .549	.301			3.884*	.02			
Parents enjoy reading Span			-.0709	.1765			-.402	.69
Child enjoys reading Eng			.2294	.2185			1.050	.30
Child enjoys reading Span			.3951	.2221			1.779	.09
Spoken Input Variables	.276	.076			.535	.71		
Spoken Output Variables	.334	.112			.817	.53		
Language Expression CTBS								
Literacy Variables	.592	.350			4.847 *	.008		
Parents enjoy reading Span			-.1091	.1703			-.641	.527
Child enjoys reading Eng			.1029	.2107			.488	.629
Child enjoys reading Span			.5538	.2143			2.585 *	.015
Spoken Input Variables	.319	.101			.734	.577		
Spoken Output Variables	.344	.118			.870	.495		

R = correlations between the variables, beta = standardized regression coefficient,
SE B = standard error of beta.

Table 6 PEARSON CORRELATION COEFFICIENT

n = 25	CTBS Eng Vocabulary	CTBS Eng Read Comp	CTBS Eng Lang Expr
Brigance Span Vocabulary	r = .74 **	r = .66 **	r = .62 **
Brigance Span Read Comp	r = .67 **	r = .67 **	r = .61 **
Enjoy Span Reading	r = .52 **	r = .44 *	r = .58 **
Enjoy Eng Reading	r = .47 *	r = .39	r = .43 *
Years of Res.	r = -.28	r = -.30	r = -.43 *
Age of Arriv.	r = .26	r = .34	r = .45 *
Mother's Schooling	r = .00	r = .11	r = .07
Father's Schooling	r = .47 *	r = .26	r = .13

*rounded to hundredths * p <.01 ** p <.001

Table 7 PEARSON CORRELATION COEFFICIENTS TAPES

n = 14	Father Partic.	Mother Partic.	Percent of Spanish
CTBS Eng Vocabulary	r = .81 **	r = -.36	r = .10
CTBS Eng Read Comp	r = .76 **	r = -.37	r = .11
CTBS Eng Lang Expr	r = .53	r = -.23	r = .11
Brigance Vocabulary	r = .67 *	r = -.25	r = -.04
Residence	r = -.43	r = -.25	r = -.46
Mexico Visit	r = -.08	r = .68*	r = .63 *

*rounded to hundredths *p<.01 **p<.001

Table 8 Attitudes toward Mexican and U.S. culture

		CTBS Vocab	CTBS R.Comp	CTBS Lang.Ex
n = 6	Positive attitudes toward both cultures	54.2%	65.5%	63.3%
n = 3	Positive toward Mexico don't know U.S. culture	45.7%	42.7%	56.3%
n = 7	Vague, general response to both questions	40.7%	51.1%	53.3%
n = 6	Positive toward Mexico mixed feeling to U.S.	36.7%	40.0%	43.0%
n = 8	Not negative toward U.S. but prefer Mexico	23.4%	32.0%	37.4%
n = 3	Negative toward Mexico prefer U.S. culture	13.0%	24.0%	28.7%

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